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EXAMINER

NGUYEN, VINH P

ART UNIT

PAPER NUMBER

2829

DATE MAILED: 05/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/123,633

Applicant(s)

MESS, LEONARD E.

Examiner

VINH P NGUYEN

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03/18/03.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-2,4,6-15,39-50 and 52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2,4,6-15,39-50 and 52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,4 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Hyun et al (pat # 5,644,247).

As to claims 1 and 10, Hyun et al disclose in figure 2 a test socket for testing a semiconductor device (26) having an electrically insulative substrate (22) for removable coupling to an electrical apparatus (not shown), said substrate having a portion that has a uniform thickness as a portion having a planar surface for receiving the semiconductor device (26), an electrical conductor (30) disposed on the planar surface of the insulated substrate, having a receiving end (30,27) for connecting to electrically conductive terminals of the semiconductor device (26) and terminal end (portion of the conductor (30) connected to inserted terminal (24)). It is noted that the substrate (22) together with the cover (29) are inserted into an electrical apparatus (test equipment) (not shown), see also column 5, lines 27-30).

As to claim 4, it appears that the receiving end protrudes upwardly with respect to the substrate.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2,7-15,39,40-50 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hyun et al (pat # 5,644,247).in view of Ogata et al (Pat # 4,831,212), Long et al (Pat # 5621333) and Liang (Pat # 5,532,612).

Hyundai et al disclose in figure 2 a test socket for testing a semiconductor device (26) having an electrically insulative substrate (22) for removable coupling to an electrical apparatus as recited in the previous paragraph # 2. Hyun et al does not specify the type of ceramic substrate made of glass, alumina, aluminum nitride, boron nitride and mixture and the conductor between the receiving end and the terminal end is not covered with an electrically insulating layer .

As to claims 2,4,6-7,9,10-15,29,45-47, Ogata et al teach that it would have been well known for one of ordinary skill in the art to select ceramic substrate made of Alumina, glass, Boron Nitride, or Aluminum Nitride or mixtures thereof. It would have been obvious for one of ordinary skill in the art to have the ceramic substrate of Hyun et al made of glass, Boron Nitride, or Aluminum Nitride or mixtures as taught by Ogata et al so that the substrate of Hyun et al would have good heat conducting and good electrical insulating properties.

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As to claim 8, Long et al teach that it would have been well known for one of ordinary skill in the art to provide an insulated layer (20) on top of a conductor (22). It would have been obvious for one of ordinary skill in the art to provide an insulated layer on the conductors of Hyun et al as taught by Long et al so that it can be used for preventing the conductors from making contact with other conductors or for heat dissipation.

As to claim 40, Hyun et al do not mention about the ceramic substrate comprising of Carbide. However, Liang teaches that it would have been well known that the substrate is made of Carbide (see column 9, lines 28-39). Therefore, it would have been obvious for one of ordinary skill in the art to have the substrate of Hyun et al made of Carbide so that this substrate would have the same thermal expansion coefficient with the device located thereon.

As to claims 41 and 48, it appears that the Carbide of Liang is a nonmetallic Carbide.

As to claims 42-44, the device of Hyun et al disclose those features as recited in previous paragraph # 2.


As to claims 49 and 52, it appears that the electric apparatus (test equipment) would include a controlling module or a program logic controller so that the test signals are controlled and analyzed.

As to claim 50, it appears that the electric apparatus is used for testing and evaluating.

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINH P. NGUYEN whose telephone number is (703) 305-4914.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4900.


VINH P. NGUYEN
PRIMARY EXAMINER
ART UNIT 2829
05/21/03